ABSTRACT OF THE DISCLOSURE

A fuel cell having high operation performance and reliability is provided by optimizing the shape and properties of a gas diffusion layer and the dimensions of a gas flow channel. The fuel cell is capable of evenly supplying a reaction gas to the catalyst of a catalyst layer and promptly discharging excessive water generated therein. The gas diffusion layer of the MEA of this fuel cell comprises a first section having a surface A that comes in direct contact with a separator plate and a second section having a surface B that faces the gas flow channel of the separator plate. The porosity of the first section is lower than the porosity of the second section, and the second section protrudes into the gas flow channel. The gas flow channel has sufficient width and depth for the protrusion of the gas diffusion layer, and the width of a rib formed by the gas flow channel is sufficiently narrow.